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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,058	11/14/2003	Thomas Weckerling	GKNG 1181 PUS	3185

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/714,058

**Applicant(s)**

WECKERLING, THOMAS

**Examiner**

Greg Binda

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 12, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13, 14, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20031114.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Election/Restrictions*

1. Applicant's election without traverse of Species III shown in Fig. 9 in the reply filed on January 21, 2005 is acknowledged.
2. Claims 12, 15 & 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 21, 2005.

*Drawings*

3. The drawings are objected to because:
  - a. Reference numerals have been used to identify features in one species and then reused to identify modifications of such features in subsequent species. See MPEP § 608.02(e).
  - b. Reference character M is used to identify a joint center at page 10, line 20 and then reused to identify track center lines in claim 1, line 21.
  - c. According to paragraph 0052, Fig. 8 is supposed to show a second pair of tracks 24, 25 that differs from that shown in Fig. 7, but no difference is shown in the drawings.
  - d. According to paragraph 0054, Fig. 10 is supposed to show a second pair of tracks 24, 25 that differs from that shown in Fig. 9, but no difference is shown in the drawings.
  - e. Structurally, the joints shown in Figs. 11 & 12 are identical. However, one is described as "inventive" (see paragraph 0056) and the other is labeled "prior art". It is not clear why this is so since the only difference between the two figures are the

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directions of force vectors F1-F4. There is no structural difference to support the differences in vector directions.

f. Reference characters R1'-R6' appear in claims 3-11, but do not appear in the drawings or the description.

g. The drawings fail to show the limitations in:

i. Claim 3, lines 32, 33, 38 & 39

ii. Claim 5

iii. Claims 7-10, lines 6, 7 & 11-13 of each claim

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

5. The disclosure is objected to because at page 13, lines 4 & 5, the description states that the opening angle  $\alpha$  “has now **changed** to such an extent that it now opens towards the attaching end” (emphasis added). How is that changed from the condition described at page 12, line 6?
6. The incorporation of essential material in the specification (paragraphs 0045 & 0046) by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).
7. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description fails to provide proper antecedent basis for the following claimed subject matter:
  - a. Claim 2: “the opening . . . changes at a substantially constant rate”
  - b. Claim 3, lines 32, 33, 38 & 39: all limitations therein
  - c. Claim 5, 13 & 14: all limitations therein
  - d. Claims 7-10, lines 6, 7 & 11-13 in each claim: all limitations therein

*Claim Rejections - 35 USC § 112*

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-11, 13, 14, 17 & 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a. Claim 1, lines 29-32 recites the limitation, “when the joint is articulated, the opening angle  $\alpha$  . . . opens towards the aperture end.” However, the specification teaches at page 13, lines 2-6, that when the joint is articulated, the opening angle  $\alpha$  opens towards the attaching end, not the aperture end.

b. Claim 3, line 31, 32, 38 & 39 recites the limitation, “in the region adjoining the first arch, towards the attaching end, [the track center lines (M22, M23)] increasingly deviate radially inwardly from the first radius (R2, R2’). As noted above, no such “region” is ever described in the description or indicated in the drawings. Furthermore, since the radius (R2, R2’) exists at a point, the center (O1, O2), that is at the radially most inward portion of the claimed invention, it is not even possible for the track center lines (M22, M23) to be anymore radially inward (i.e. “increasingly deviate radially inwardly”) than the radius (R2, R2’).

*Claim Rejections - 35 USC § 102*

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2 & 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Leon, US 2,949,022. Fig. 2 shows a constant velocity joint in the form of a counter track joint comprising: an outer joint part 10 with first and second outer ball tracks 21, 22 (see also Fig. 1); an inner part 11 with first and second inner ball tracks 23, 24 and an attaching mechanism 15 for a shaft 16; an attaching end (left side); an aperture end (right side); a ball cage 12; and a ball 26 arranged in each of the first pairs of tracks 21, 23 and the second pairs of tracks 22, 24. Fig. 2 shows that the first track pair 22, 24 opens towards the aperture end and that the second track pair 21, 23 opens towards the attaching end. Fig. 2 also shows that, due to the beveled surface 27, the first track pair 21, 23 will open toward the aperture end when joint is articulated so that the ball 26 comes in contact with the surface 27.

*Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leon in view of Dodge, US 2,322,570. Leon shows all the limitations except Leon shows six pairs of tracks instead of eight. Dodge teaches, at page 2, col. 2, lines 15-20, that eight pairs of tracks should be used instead of six in order to reduce end thrust. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the constant velocity joint of Leon by using eight pairs of ball tracks instead of six in order to reduce end thrust as taught by Dodge.

#### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Weckerling shows a constant velocity joint.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Greg Binda  
Primary Examiner  
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